



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,810	05/15/2001	Gerald R. Malan	UOM0208PUSP	1546

7590 04/24/2006

David R. Syrowik  
Brooks & Kushman P.C.  
22nd Floor  
1000 Town Center  
Southfield, MI 48075-1351

EXAMINER

AILES, BENJAMIN A

ART UNIT	PAPER NUMBER
----------	--------------

2142

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/855,810

Applicant(s)

MALAN ET AL

Examiner

Benjamin A. Ailes

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948),                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to correspondence received 28 February 2006.
2. Claims 1-20 remain pending.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Yavatkar et al. (U.S. 6,735,702), hereinafter referred to as Yavatkar.
5. Regarding claim 1, Yavatkar discloses a method for reconstructing a path taken by undesirable network traffic through a computer network from a source of the traffic, the computer network including collectors located at fixed points within the network, the method comprising:

collecting statistics at the collectors located at the fixed points from a plurality of measurement points located within routing and forwarding infrastructure of the computer network, the collectors interfacing with the forwarding infrastructure and taking samples of statistics from the infrastructure (col. 3, lines 25-29, Yavatkar discloses a method of using agents in order to collect data at a plurality of points within a network, the data

Art Unit: 2142

being information about the state of the network. col. 3, lines 49-54, stationary agents are used to collect statistics at selected points in the network.); and

analyzing the samples of statistics to reconstruct the path taken by the undesirable network traffic through the network from the source of the traffic (col. 3, lines 29-32, Yavatkar discloses the method of determining the source and determining the path taken (reconstructing the path) based on the data gathered.).

6. Claim 9 contains similar subject matter and is rejected under the same rationale as claim 1.

7. Regarding claim 2, Yavatkar discloses the method further comprising blocking undesirable network traffic within the computer network upstream of the points based on the reconstructed path (col. 14, lines 10-17, Yavatkar discloses methods used to combat attacks using source routing by quickly enabling the path of attack traffic to be found. When the path is found, appropriate action is taken, for example installing firewall entries at appropriate points in order to block attack traffic.).

8. Claim 10 contains similar subject matter and is rejected under the same rationale as claim 2.

9. Regarding claim 3, Yavatkar discloses the method wherein the routing and forwarding infrastructure includes at least one router (Figure 3 and col. 7, ll. 46-48, Yavatkar illustrates and discloses the use of routers.).

10. Claim 11 contains similar subject matter and is rejected under the same rationale as claim 3.

11. Regarding claim 4, Yavatkar discloses the method wherein the statistics include flow-based statistics which provide information related to the same logical traffic flow (col. 14, ll. 21-30, Yavatkar discloses monitoring at a plurality of nodes in order to determine the direction of traffic flow.).

12. Claim 12 contains similar subject matter and is rejected under the same rationale as claim 4.

13. Regarding claim 5, Yavatkar discloses the method wherein the statistics include packet statistics which provide information about a set of packets entering the routing and forwarding infrastructure (col. 15, ll. 9-17, Yavatkar discloses methods used to monitor network traffic characteristics and detect attack traffic.).

14. Claim 13 contains similar subject matter and is rejected under the same rationale as claim 5.

15. Regarding claim 6, Yavatkar discloses the method further comprising requesting and receiving upstream statistics from forwarding infrastructure of the computer network upstream the measurement points and wherein the step of analyzing includes the step of analyzing the upstream statistics to reconstruct the path taken by the undesirable network traffic (col. 14, ll. 21-30, Yavatkar discloses monitoring at a plurality of nodes in order to determine the direction of traffic flow.).

16. Claim 14 contains similar subject matter and is rejected under the same rationale as claim 6.

17. Regarding claim 7, Yavatkar discloses the method wherein the step of analyzing includes the step of extracting profiles from the statistics collected at the plurality of

Art Unit: 2142

measurement points and comparing the profiles to reconstruct the path taken by the undesirable network traffic (col. 15, ll. 9-17, Yavatkar discloses methods used to monitor network traffic characteristics and detect attack traffic.).

18. Claim 15 contains similar subject matter and is rejected under the same rationale as claim 7.

19. Regarding claim 8, Yavatkar discloses the method wherein the computer network is the Internet (Figure 3 and col. 7, ll. 43-44, Yavatkar illustrates and discloses the use of the Internet.).

20. Claim 16 contains similar subject matter and is rejected under the same rationale as claim 8.

21. Regarding claim 17, Yavatkar discloses the method wherein the undesirable network traffic includes denial of service attacks (col. 13, ll. 39-43, Yavatkar discloses the operation of the invention to be used to trace denial of service attacks.).

22. Claim 19 contains similar subject matter and is rejected under the same rationale as claim 17.

23. Regarding claim 18, Yavatkar discloses the method wherein the computer network includes a plurality of service provider networks (col. 13, ll. 44-48, Yavatkar discloses of Internet providers in order to assist in shutting down sources that are guilty of performing attacks on the network.).

24. Claim 20 contains similar subject matter and is rejected under the same rationale as claim 18.

***Response to Arguments***

25. Applicant's arguments filed 28 February 2006 have been fully considered but they are not persuasive. Applicant argues in regards to independent claims 1 and 9 that Yavatkar fails to teach, disclose, or suggest "collecting statistics at collectors located at fixed points within a computer network from a plurality of measurement points located within routing and forwarding infrastructure of the computer network, the collectors interfacing with the forwarding infrastructure and taking samples of statistics from the forwarding infrastructure." The Examiner respectfully disagrees. Yavatkar discloses the utilization of agents to collect data on a network (col. 3, lines 26-29), the agents being of a type which are stationary agents (watchdog agent, col. 3, lines 49-54) that are positioned at certain points within the network. This method of assigning agents to certain locations is deemed equivalent to the claimed method of assigning collectors to fixed points within a computer network. Yavatkar's agents collect statistics at these certain locations (col. 3, lines 29-32). The agents being able to collect statistics at certain locations is deemed equivalent to applicant's claimed sample statistic collection method as found in independent claims 1 and 9. Therefore, it is determined that claims 1 and 9 as written are not deemed patentable over Yavatkar.

**Conclusion**

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin A. Ailes whose telephone number is (571)272-3899. The examiner can normally be reached on M-F 6:30-4, IFP Work Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



**ANDREW CALDWELL**  
**SENIOR PATENT EXAMINER**



Art Unit: 2142

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

baa



**ANDREW CALDWELL**  
PATENT EXAMINER